1959-004-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
DISTRICT H

COAL FATAL

REPORT OF FATAL BUMP ACCIDENT
SUNNYSIDE NO. 2 MINE
KAISER STEEL CORPORATION
SUNNYSIDE, CARBON COUNTY, UTAH

January 29, 1959

By

Joe Freeman
Coal-Mine Inspector

Originating Office - Bureau of Mines
1600 East First South, Salt Lake City 12, Utah
L. D. Knill, Subdistrict Supervisor
Salt Lake City, Utah Subdistrict, Health and Safety
District H

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INTRODUCTION

Carroll John Askern, age 43, timberman, was killed instantly and Elvoy Widdison, mechanic, received multiple contusions about 1:00 p.m., Thursday, January 29, 1959, by a fall of top rock which resulted from a severe bump in the 6 right section in the Sunnyside No. 2 mine of the Kaiser Steel Coproration, Sunnyside, Carbon County, Utah. The deceased had 14 years mining experience of which number 11 were in the Sunnyside mines, where he had served as a timberman for the past 7 years. He is survived by his widow and a dependent daughter.

The writer was notified of the accident about 1:15 p.m. on January 29 by a telephone call from Joseph T. Taylor, mining engineer for the company, and the investigation was made that afternoon.

GENERAL INFORMATION

The Sunnyside No. 2 mine, Kaiser Steel Corporation, is situated at Sunnyside, Carbon County, Utah on State Highway No. 123 and is served by a branch line of the Denver & Rio Grande Western Railroad.

The mine, opened by 2 drifts and 5 raises, was developed in the Upper and Lower Sunnyside high-volatile, bituminous coal beds, which average 4½ and 10 feet in thickness, respectively, and dip about 6 degrees northeasterly. A total of 284 men was employed, of which number 204 worked underground on three shifts a day and 80 worked in the shop on the surface on two shifts a day, 5 days a week. The shop served the three Sunnyside mines of the Kaiser Steel Corporation. The average daily production of 1,276 tons of coal was loaded into cable-reel shuttle cars with mobile loading machines and ripper-type continuous mining machines. The life of the mine was estimated as many years.

The mine was developed by a room-and-pillar method and pillars were recovered by the splitting and open-end method. Entries, 16 feet wide, were driven in pairs and sets of three. Rooms were driven 18 feet wide on 80-foot

centers and crosscuts were driven at 80-foot intervals. Entries on the left side of the main slopes were driven a distance of 4,000 feet to interconnect the Water Canyon bleeder slopes which extended to the surface, and entries turned off the right side of the main slopes were driven about 8,200 feet to interconnect the Columbia Canyon bleeder slopes which extended to the surface also. Entries on the right side of the slopes intersected partially mined areas which were worked in 1924.

The immediate roof overlying the Upper Sunnyside coal bed consists of shale ranging from a feather edge to 10 feet in thickness and the main roof was sandstone. A band of shale ranging from 1 to 15 feet in thickness separated the two coal beds. The cover over the coal beds ranges from 500 to 2,500 feet in thickness, much of which is massive sandstone which exerts excessive pressure upon the coal beds to the extent that severe bumps frequently occur. The roof was supported with 1-inch, wedge-type roof bolts 6 to 10 feet in length and metal airplane landing mats installed in accordance with a plan approved by the Bureau of Mines and used in conjunction with straight props, crossbars, and cribs. At the time of the last previous routine inspection, yieldable steel arches had been installed on 3-foot centers along the main haulage slope from 6 right entry to a point 50 feet below 16 left entry, along the left side manway slope from 9 left entry to 16 left entry, along the left return slope from 10 left entry to a point 200 feet below 16 left entry, at some of the face areas in the working sections and at numerous other places throughout the mine. Wooden blocks and planks were placed over the arches on the slopes and the areas between the arches and roof and ribs were back-filled with minus $\frac{1}{4}$-inch material brought in from the surface by the sluicing method. The arched sections of the slopes were gunited as a protection against fire. A total of 3,904 yieldable steel arches had been installed in the mine at the time of the last inspection.

Coal was transported in 10-ton capacity cable-reel shuttle cars from the working faces to loading stations on the entries where it was discharged into all-steel, 5-ton capacity, rotary dump-type mine cars equipped with automatic couplers. The mine cars were handled on the secondary and main haulage entries by 8- and 21-ton trolley locomotives. An electrically driven hoist handled the trips on the slope. Some of the trolley locomotives were equipped with a two-way communication system. Crosscuts and room necks served as shelter holes and adequate clearance was provided along the haulage roads. Workmen were transported underground in covered, all-steel man-trip cars to the slope sidetracks, and from there to the working sections in regular mine cars. The men rode in the cars on the side opposite the trolley wire, and the trolley wire was de-energized while the workmen were leaving or boarding the man-trips. The man-trip was equipped with safety hitchings and the main slope man-trip was provided with bridle chains fastened to the cars and attached to the main rope at least 3 feet above the socket. A qualified hoisting engineer was on duty continuously while men were underground and a second engineer was on duty when men were handled on the slope.

The mine is classed gassy in accordance with the laws of the State.

Sketches of the scene of the accident and the area affected by the bump are appended. Information for this report was obtained from eye witnesses, company officials and from a visit to the scene of the accident.

The names and occupations of the eye witnesses who furnished information are:

William Vodopich	Face boss
Paul Magnuson	Loading machine operator
James Lampshire	Shot firer

The investigation Committee consisted of:

Kaiser Steel Corporation

John Peperakis	Manager of Sunnyside Mines
Van Alger	Day mine foreman
Julius Maki	Night mine foreman
Wilmer Wright	Superintendent of maintenance
Clarence E. Self	Safety engineer
Joseph T. Taylor	Mining engineer
William Vodopich	Face boss

United Mine Workers of America

Frank Stevenson	President, Local Union No. 9958
Henry Brownfield	Chairman, Safety Committee
Isaiah Parry	Safety committeeman
Melvin Heath	Safety committeeman

Industrial Commission of Utah

James H. Phillips	Coal-Mine Inspector

Bureau of Mines

L. D. Knill	Subdistrict Supervisor
Joe Freeman	Coal-Mine Inspector

The last previous inspection of this mine was made December 1-5, 1958.

DESCRIPTION OF ACCIDENT

About two months prior to this accident several violent bumps occurred in the working sections in the 6 right entries and at that time

the company decided to work only the "H" section in these entries. Further, it was decided to single-shift this section so as to lessen the man-hour exposure time. After this had been done the area seemed to settle down. The victim was killed on the main-line haulage entry near the "C" section parting and about 175 feet inby the track switch (referred to as the "Y") leading to the "H" section. The crew employed in this section was comprised of 14 men and mining was confined to driving a place 18 feet wide and 10 feet high down grade from the "H" section to interconnect the track-haulage entry leading to the "C" section for the purpose of establishing a new mine-car loading station for the cable-reel shuttle cars.

Wednesday, January 28, the place was shot through to the haulage entry and the loose coal was loaded. Friday, January 29, about 10:45 a.m., another round of shots was fired to complete the connection. The loose coal was again loaded into shuttle cars with an 11-BU Joy loading machine. After the place had been cleaned up the 10-car loaded trip, pulled by a trolley locomotive, departed from the "H" section loading station, and the loading crew prepared to set timbers in the newly opened area. Carroll John Askern had been timbering and installing yieldable steel arches along the haulage entry and was using an 8-ton trolley locomotive to handle material. William Vodopich, face boss, wanted Askern to use the locomotive to pick up a car of rock dust from the "C" section parting and spot it at the new loading station where the crew was to unload the rock dust. Askern started the locomotive (pulling 4 empty cars) toward the "C" section parting and Vodopich was following on foot. As the locomotive neared the new break-through a violent bump occurred causing a section of the bolted and timbered roof in the haulage entry to fall, covering the locomotive and crushing the victim to death. The loading crew was thrown to the floor. Widdison, mechanic, who was about 10 feet from the side of the locomotive, was pinned at his feet by slabs or rock from the fallen roof. The 10-car trip was about to enter the main haulage entry at the "Y" and at least 6 of the cars were thrown off the rails. The dust in suspension was very dense. The loading crew rose to their feet and released Widdison who was only bruised and still able to walk. After releasing Widdison they could see part of the locomotive but could not hear or see Askern. The roof was still working heavily so they retreated to the "Y" through the "H" section haulage entry. After arriving at the "Y" Paul Magnuson, loading machine operator, and James Lampshire, shot firer, worked their way up the haulage entry toward the locomotive and saw Askern under the fall. They observed no sign of life and heard no sound from the victim, hence, they returned to the "Y" until additional roof support could be set in the entry. The rescue crew set center posts along the entry as they advanced to rescue the victim. Askern was removed from under the fall of rock about 2:15 p.m.

The fall of rock, about 100 feet long, 18 feet wide and 5 feet thick, pulled out some of the roof bolts and broke out from around others. The roof in the immediate area was supported by timbers up to 20 inches in diameter set about 8 feet apart along each rib and by 1-inch, wedge-type,

8-foot roof bolts set 3 and 4 feet apart. The steel bearing plates used with the roof bolts were 8 inches square and 3/8-inch thick.

CAUSE OF ACCIDENT

This accident was caused by a severe bump dislodging roof rock which was supported by large timbers and 1-inch, wedge-type roof bolts, 8 feet in length, installed 3 and 4 feet apart. Bumps of this type are one of the unsolved problems of coal mining; therefore, at this time there are no recommendations that can be offered to prevent accidents of a similar nature.

ACKNOWLEDGMENT

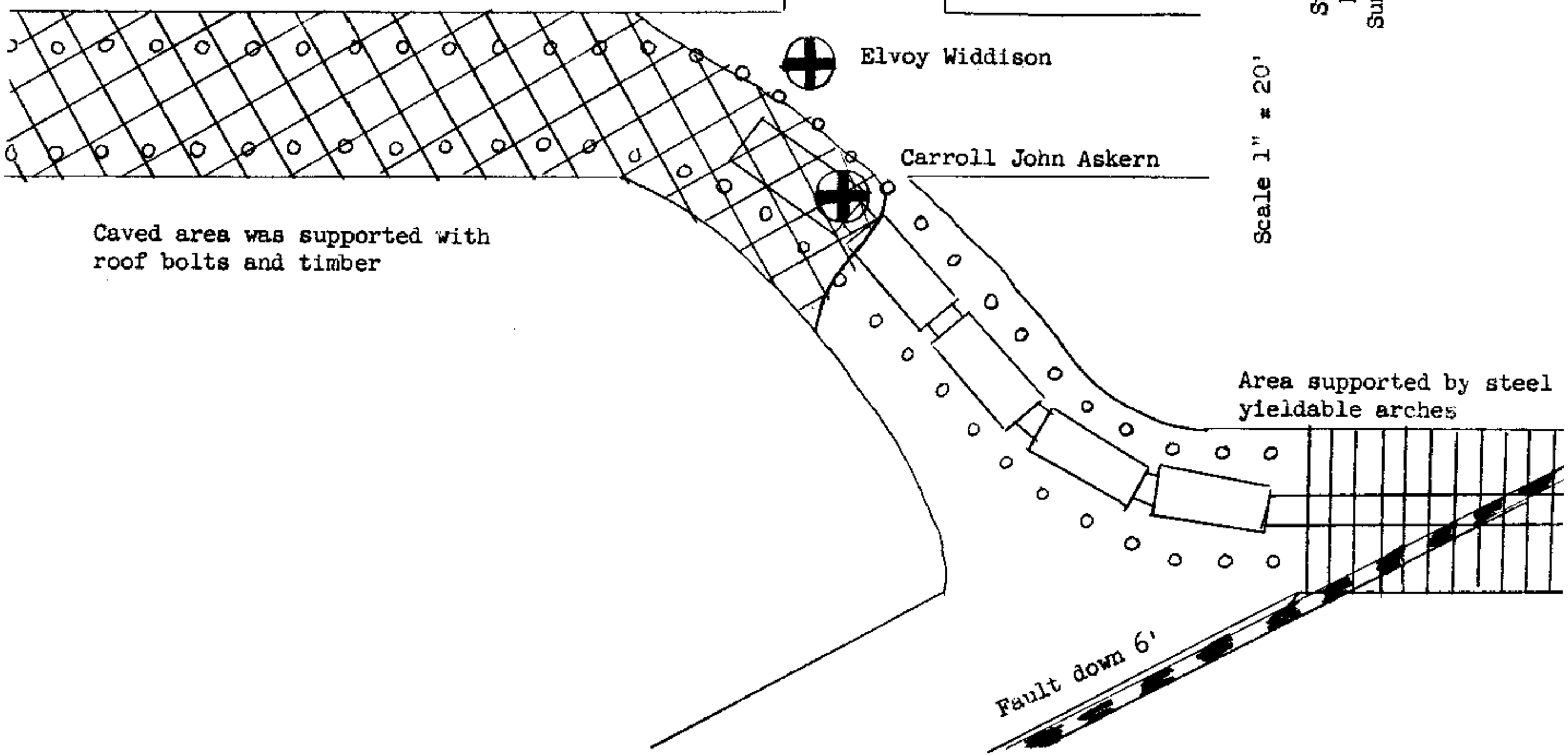
The cooperation of the Industrial Commission of Utah, company officials, employees, and union officials is gratefully acknowledged.

Respectfully submitted,

/s/ Joe Freeman

Joe Freeman
Coal-Mine Inspector

Scene of Bump occurring in 6th right, Sunnyside No. 2 mine, on Jan. 29, 1959, resulting in fatal injuries to Carroll John Askern

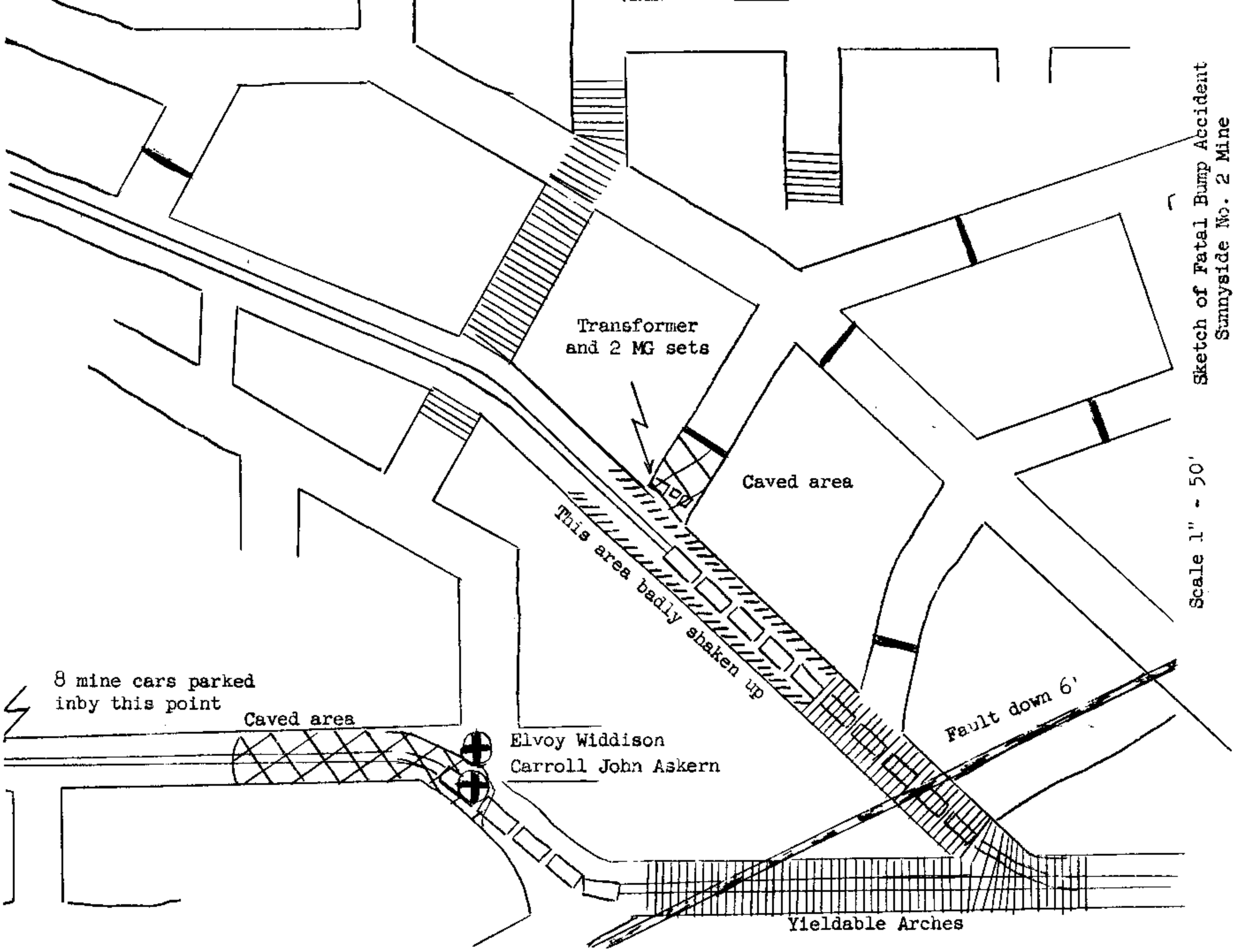


Sunnyside No. 2 Mine
Kaiser Steel Corp.
Sunnyside, Carbon County, Utah

Scale 1" = 20'

Sketch of Fatal Bump Accident
Sunnyside No. 2 Mine
Kaiser Steel Corp.
Sunnyside, Carbon County, Utah

Scale 1" - 50'



FATAL ACCIDENT DATA

1. Daily employment 284 Time of accident: 1:00 p.m.
2. General location of accident main-line track to the "C" section parting in the 6 right section
3. Job when injured timberman Regular job timberman
4. Age 43 Years experience regular job 7 In mines 14
5. Dependents: Widow yes Number of children under age 18 1 Others -
6. Method of loading in place where accident occurred: mechanical